

“College Student Perceptions of Safety and School Shooting Events”

An Honors Thesis

by

Brittany Rene Brommer

California, Pennsylvania

2022

California University of Pennsylvania

California, Pennsylvania

We hereby approve the Honors Thesis of


Brittany Rene Brommer

Candidate for the degree of Bachelor of Science

Date

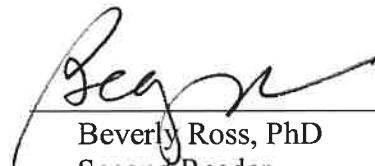
Faculty

4-20-2022



Christopher Wydra, PhD
Honors Thesis Advisor

4-20-2022



Beverly Ross, PhD
Second Reader

4/20/22



Craig Fox, PhD
Honors Advisory Board
Associate Director, Honors Program

20 April 2022



M. G. Aune, PhD
Director, Honors Program

Brittany Brommer

Criminal Justice with a Concentration in Homeland and International Security

Dr. Christopher Wydra, Advisor

Dr. Beverly Ross, Second Reader

Dr. Craig Fox, HAB Member

Mr. Bill Meloy, Librarian

Keywords: college students, school shootings, anxiety, media, target hardening, school
shooting drills

TABLE OF CONTENTS

1.	Table of Contents.....	I
2.	Abstract.....	III
3.	Introduction: School Shootings in the United States.....	1
4.	Mass Shootings at the Collegiate Level.....	2
	a. College Students.....	3
5.	The Media and Moral Panic.....	5
6.	Target Hardening and Training.....	7
7.	Methodology.....	10
	a. Introduction.....	10
	b. Research Questions.....	10
	c. Methodological Approach.....	11
	d. Data Collection Procedures.....	11
	e. Research Question Mapping.....	12
	f. Participant Sample.....	13
	g. Summary.....	13
8.	Survey Questions.....	13
9.	Data.....	13
	a. Analysis.....	14
	b. Findings.....	14
10.	Discussion.....	18
	a. Limitations.....	23
11.	Recommendations.....	26

12. Conclusion.....25

13. References.....28

14. Appendix I: Survey Questions.....31

15. Appendix II: Survey Results.....37

16. Appendix III: Institutional Review Board Approval.....43

Abstract

The rising phenomenon of mass shootings within schools in the United States has been a prevalent topic in news media and social media outlets. In response to what seems to be an increase in violence within schools, safety plans and procedures have been put in place to protect students from the seemingly inevitability of school shootings. The intent of this research is to gather data on student perceptions of school mass shootings, specifically at the collegiate level. The feelings of anxiety within students is debated by many researchers in the criminal justice and psychology fields. While some believe that the anxious feelings are caused by the projection of school shootings in the media, others believe that the training and drills conducted to mitigate school shootings cause unnecessary trauma within students. In this research project, on-campus college students will be examined on their personal perceptions towards mass shootings at the university. Additionally, this research project will delve into the possible anxiety-inducing triggers such as the mass media and active shooter drills. The goal of the research project is to then provide policy recommendations to colleges or universities that will help to alleviate the anxiety within students.

Keywords: college students, school shootings, anxiety, media, target hardening, school shooting drills

Introduction: School Shootings in the United States

Columbine, Sandyhook, Virginia Tech, and Stoneman Douglas, are names familiar to every American. Despite media or other indications that school shootings have increased, in reality, school violence has overall been declining since 1993 (Twemlow et. al, 2002). The panic of school shootings seemed to have begun in 1999 with the Columbine High School shooting. However, in 1997 there were two school shootings at Pearl High School in Mississippi and Heath High School in Kentucky (Jonson, 2017). Additionally, in 1998, a shooting occurred at Thurston High School in Oregon. What made the Columbine High School shooting different from the three shootings in the two previous years is the media attention it received. The chaos of the scene was nationally broadcasted to viewers at home, which included visuals of terrified children running for their lives, the SWAT team running into the building to rescue the others, and ambulances loading children on stretchers with blood-soaked sheets. On the day of the Columbine High School shooting, the news channel CNN provided six hours of uninterrupted live coverage of the scene (Jonson, 2017).

The concern of school shootings is present in news media, social media, and conversations with legislatures in the United States. Therefore, there is no questioning that school violence is an issue across the country at all education levels. The answer that must be sought after is what impact do school shootings have on students and their perceptions, and what can be done to alleviate potential feelings of worry and anxiety? In order to answer these questions, a survey was administered to students who attend in-person classes at California University of Pennsylvania. The goal of the survey was to gauge student perspectives to determine if outside influences such as the media, security

tactics, and prior experiences impacted student perceptions of mass shootings at the university. An initial literature review was conducted to provide a baseline of information on how factors such as the media and mass shooting drills can influence student perceptions. The findings from the survey were used in order to make recommendations as to what can be improved upon at the university for the students' safety and peace of mind.

Mass Shootings at the Collegiate Level

Much of the media attention and research is directed towards shootings that occur at the K-12 level, leaving little to be said about school shootings that occur at colleges and universities across the United States. The most infamous university shooting occurred at Virginia Tech in Blacksburg, Virginia. The incident occurred on the morning of April 16th, 2007, with the first shooting at approximately 07:00 with two victims, and the second shooting from 09:30-09:50 with 30 more victims (Vieweg et. al, 2008). At 12:00, a press conference was held to update the community that there were 21 deceased and 28 others injured. At 14:13, the final death toll was announced at 32, including the assailant. Ten months after the Virginia Tech incident, a shooting occurred at Northern Illinois University (Kaminski et. al, 2010). The shooting at Northern Illinois University resulted in the deaths of five people, and injured 18 others.

As Kaminski et al. mentions in their article, research on the fear of mass shootings on college campuses is lacking, as a majority of current research focuses on secondary school students (2010). However, similarly to K-12 schools, college campuses have also begun to implement new security services and techniques in response to the school shootings. Improved emergency communication systems have now expanded to

alerting students of a campus emergency by text, email, and other phone alerts (Kaminski et. al, 2010). Additionally, colleges and universities have also enacted campus lock down drills, increased security personnel, initiated student profiling, and permitted students and faculty to conceal carry on campus. At face-value, these new security implementations seem to be well-intentioned with the best interest of students, faculty, and staff at the forefront. However, research must continue to be conducted to determine effectiveness of these new initiatives.

College Students

College students' perceptions of safety must be analyzed specifically as to how they perceive the effectiveness of the security measures currently in place. While sometimes new security measures may bring about anxiety or increase perceptions of the likelihood of victimization, some students feel as if there is not enough security on college campuses to protect them from crimes, such as mass shootings. A survey conducted on 20 college students ages 21-25 found that 45% of the students felt that the security on their campus was inadequate (Chekwa et. al, 2013). When asked what should be done to make the campus safer, 55% of the students responded that the campus needed more police or security officials. Therefore, students at every college and university must be surveyed on their satisfaction of campus security in order to alleviate any anxiety it may bring about on crime victimization.

Along with the new security standards on campuses, the media must also be examined in order to determine its relationship with students' perceptions of fear on college campuses. According to the Pew Research Center, in 2006, 41% of young adults between the ages of 18 and 29 utilized social media. In 2008, that percentage rose to 63%

(Perrin, 2020). Therefore, the impact social media had on college students during the Virginia Tech and Northern Illinois shootings would have looked much different than if they were to occur today. To further illustrate this concept, compare social media use in the early 2000s when the Virginia Tech and Northern Illinois shootings occurred, to 2015 when 90% of 18-29-year old's were reported to have used social media. Additionally, 76% of individuals with a college or graduate degree utilize social media in 2015, making them even more susceptible to viewing content about school shootings (Perrin, 2020). Therefore, these statistics suggest that the increase of social media in students' lives would be much different today, concerning the consumption of social media content directed towards school shootings, than it was in the early 2000s.

In addition to social media, news media also plays a significant role in the broadcasting of major events such as school shootings. However, in a survey conducted in 2019 of 1,500 college students, 27% of the students responded that they get their news from social media rather than print newspapers or television (College Pulse, 2019). The survey polled students as to which news source they rely on for information about politics and current events. *The New York Times* and NPR ranked as students' favorites, which was followed by Fox News and CNN. As previously mentioned, when the news about the Columbine shooting first broke, CNN spent six hours of uninterrupted coverage of the live scene (Elsass et. al, 2014). After the Virginia Tech shooting, *The New York Times* published 138 articles about the incident. Therefore, these examples suggest that some of college students' most favored news sources tend to overreport stories about school shootings. Thus, research must continue to be conducted on how news media impacts college students' perceptions.

The Media and Moral Panic

In society's current climate, breaking news stories can travel faster than ever. This can be contributed to the 24-hour live news coverage on television and the new phenomenon of social media. The narrative that school shootings are on the rise in the United States can be attributed to the abundant coverage of these events on social media and news media (Elsass et. al, 2014). A month after the school shooting at Sandy Hook Elementary, 90% of people reported that they were still following the story somewhat closely, or very closely (Jonson, 2017). The constant coverage of news stories such as a school shooting can result in what is called a moral panic. A moral panic is defined as when a "condition, episode, person or group of persons emerges to become defined as a threat to societal values and interests" (Jonson, 2017). As time goes on, the panic will cease or become replaced by a new threat. This can be seen in a poll conducted by Gallup on parent's concerns for their child's safety at school. The parent's fear peaked at 55% in 1999 after the Columbine High School shooting occurred (McCarthy, 2021). The fear then dropped to 26%, and ultimately spiked back up in 2001 after reports of the Santana High School shooting in California (McCarthy, 2021). Another phenomenon that is related to moral panics is the cultivation effect. A cultivation effect occurs due to people increasing their media consumption, which prompts them to see the world as the media portrays it. This occurs predominantly if the topic is being heavily framed by the news media (Elsass et. al, 2014).

Social media can also play a damaging role in increasing worry and anxiety of school shootings within students. As previously mentioned, a majority of college students utilize some sort of social media. This then opens them up to endless possibilities of

viewing sensitive and often times inaccurate information. In a Pew Research Center survey given to U.S. adults in 2020, 64% of the respondents stated that social media has mostly a negative effect on society, and 28% stated that the main reason is because of the spread of misinformation (Auxier, 2020). Misinformation is essentially “made-up news,” which can be spread rapidly on social media platforms such as Twitter, Facebook, and Instagram. Students who are curious and want more information about breaking news stories of school shooting incidents will typically turn to social media to get the latest details (Stein, 2021). Information they will look for is if they know anyone who was impacted, what the death or injury toll is up to, and if the shooter was identified and captured. Since information on social media is not verified for accuracy, it can become extremely harmful, especially when users begin to share the misinformation with their friends and followers on the network.

In addition to inaccurate information, harmful and sensitive details about school shootings can also be viewed. After the shooting at Oxford High School on November 30th, 2021, the social media network “TikTok” was filled with terrifying videos of students barricaded in their classrooms or running away from the school. One video in particular was viewed by over 1.6 million TikTok users (Stein, 2021). Social media also plays a role in potentially encouraging copy-cat incidents. In December 2021, three weeks after the Oxford High School shooting, a TikTok school shooting “challenge” had school districts on high alert after threats were made that school shootings would occur across the country on Friday, December 17 (Frishberg, 2021). Although after investigating the threats and deeming them not credible, parents and students were still fearful about attending school that Friday, and some school districts even opted to close

school for the day. Therefore, the impact of viewing frightening videos and photos of active school shooter scenes and constantly reading about new threats on social media can contribute to the anxiety and fear within students.

Target Hardening and Training

In response to the school shooting incidents, school officials and administrators began to implement new security measures in order to prevent further incidents from occurring. Some of these new measures include conducting surveillance to prevent weapons from entering school premises, hiring armed officers, implementing stricter access control measures, metal detectors, bullying prevention initiatives, and launching an improved emergency communication system (Jonson, 2017). These security measures are put in place based upon the routine activities theory, rational choice theory, and crime pattern theory (Jonson, 2017). The idea is that an offender will make a rational choice based upon the opportunities that are available. However, when these security measures are implemented, it limits or prevents the availability of those options for the offender to choose from.

Researchers are beginning to question the psychological impact on students when stricter security measures are implemented in schools. One new measure in particular is conducting active shooter drills, which are similar to fire drills or extreme weather drills. The purpose of these drills is to enhance awareness and preparedness of students and staff in case a shooting occurs (Rygg, 2015). Some researchers question if too many drills might cross the line of appropriateness. It is important to point out that although lockdown drills may seem to be a new emergency preparedness technique, they have actually been around since the Columbine High School shooting (Rygg, 2015). In the

2017-2018 school year, more than 4.1 million students in the United States participated in at least one lockdown drill (Walker, 2020). One major drawback of these drills is that there is no consensus as to what the proper and consistent procedures should be followed in schools across the United States. For example, some schools insist teachers actually “lockdown” their classrooms, while other schools encourage students to try and run to safety as the first option.

One of the most commonly known drills is called the ALICE Training. ALICE is an acronym that stands for alert, lockdown, inform, counter, and evacuate (National School Safety & Security Services, (n.d.)). This training was created by the Department of Homeland Security and initially intended to be used in workplace settings. Many critics debate the “counter” part of this training, especially for students in the K-12 grades (National School Safety & Security Services, (n.d.)). Students are instructed to “counter” the assailant by throwing books, chairs, and any other object that could harm the intruder in order to mitigate the situation. Some researchers believe that by instructing already scared and young students to respond in this way, may escalate the situation rather than neutralize it (National School Safety & Security Services, (n.d.)). Those who advocate for the ALICE training argue that the “counter” portion is to prepare students for the unthinkable, so that they are not “sitting ducks” waiting to be attacked. Due to the differences of opinions, there are inconsistencies with training and drills throughout K-12 schools, and even in colleges and universities across the United States. Since this research is specifically examining California University of Pennsylvania, it is important to note that the university organized a voluntary ALICE training in 2017, and has not addressed the topic of mass shootings with any other training or drills since then.

Additionally, as school shootings seemed to become more prevalent and extreme, so did the drills. Lockdown drills went from teachers simply locking their doors and turning the lights off, to involving the local first responders in order to make the drill seem more realistic (Rygg, 2015). There are some benefits in making active shooter drills more realistic. For starters, students will have a more of a concrete idea of what to do in the event of an active shooter on campus. Second, by involving local law enforcement and other emergency response services, it provides them with the training they need to prepare in the event an active shooter incident would occur.

Intensifying active shooter drills can also have negative consequences for students. One example of this is schools beginning to conduct unannounced active shooter drills. Additionally, to further intensify the drill, schools will utilize actors as fake intruders who either fire off blanks or rubber pellets (Walker, 2020). Although the use of pretend intruders and blanks are not intended to purposely scare students, Janet Shapiro, a dean of the Graduate School of Social Work and Social Research at Bryn Mawr College, stated that depending upon the age group, young children have a difficult time separating fantasy and reality especially in stressful situations (Walker, 2020). Therefore, numerous drills coupled with realistic effects might begin to take a damaging psychological toll on students. Students may even begin to unrealistically believe that they are destined to experience a school shooting at some point in their life. Thus, further research must be conducted on the ways active shooter drills can impact students.

Methodology

Introduction

This research study examined California University of Pennsylvania students' perceptions of school shootings and safety pertaining to the topic. The data was derived from a survey that was administered to California University of Pennsylvania students that take on-campus classes. Analysis of the data included an examination of student responses and compared it to the research collected from the literature review. A description and explanation of the methodological approach, data collection procedures, instruments, participant sample, and data analysis processes will be provided. Institutional Review Board approval was obtained from California University of Pennsylvania and can be found in Appendix III.

The research design utilized in this study took a traditional methodology approach. It first began by conducting a literature review to address the two research questions created. The second step was to develop a survey tool and acquire a population to utilize in addressing the research questions. Third, data was collected using the survey tool. Fourth, the data was analyzed and compared to the literature review. Lastly, the findings were discussed and policy recommendations were made. This study utilized the web-based software Microsoft Forms as the survey tool to create and distribute questions through a secure email link. Additionally, Microsoft Forms provided tools to analyze and review the answers the respondents provided.

Research Questions

The intent of this study was to identify and examine California University of Pennsylvania student's perceptions of safety relating to shooting events on campus.

Additionally, this study sought to discover specific factors that contributed to the feelings and perceptions students may have. The research questions that directed this study were:

1. How does media and active shooter drills influence student's perceptions on the topic?
2. Does the threat of an active shooter impact students' perceptions of safety on campus?

Methodological Approach

The topic of college students' perceptions of safety and school shooting events was chosen due to the lack of research specifically focusing on students at the collegiate level. Additionally, the researcher chose this topic to provide recommendations and generate a conversation relating to safety at the university they attend. A quantitative research design was chosen in order to reach a larger population of respondents to assist with generalizability, as well as validity and reliability. Additionally, quantitative research allows for quick collection and assessment of close-ended questions. The sample population was chosen due to the convenience of the researcher attending the university being analyzed. Since this study only examined students that attend in-person classes at California University of Pennsylvania, it only reached a relatively small participant pool compared to the very large population of college students in the United States. In order to increase the reliability and generalizability of this research, the study could be replicated at other college or university campuses across the United States.

Data Collection Procedures

The researcher in this study contacted organizations at California University of Pennsylvania to assist in distributing the survey through email correspondences that were

approved by the Institutional Review Board. These organizations included, the University Honors Program, the University Housing Office, the Criminal Justice Department, and the Criminal Justice Club. These organizations agreed to support the study and assist in distributing the survey to their students, residents, and club members. The support and assistance provided by the organizations included allowing the researcher to speak about the study during classes or meetings, or sent an Institutional Review Board approved recruitment letter to their email lists. By utilizing these different organizations, the researcher was able to obtain a very diverse group of respondents for the survey. All participants agreed to take the survey voluntarily, and were made aware of the risks, confidentiality, and purpose of the survey for the research study.

Research Question Mapping

The research questions included in the survey for this study examined students' perceptions on matters relating to experiences, safety, and security at the university. In order to address the research questions, the survey questions were mapped in a way that would address them, and were distributed to the California University of Pennsylvania students through Microsoft Forms. For example, the survey question, "how many times have you participated in a mass shooting drill?" corresponds with the research question, "how does the media and active shooter drills influence student's perceptions on the topic?" Additionally, the survey question, "have you ever experienced a threat of a school shooting in high school or college" corresponds with the research question "does the threat of an active shooter impact students' perceptions of safety on campus?" This method was used throughout the creation of all survey questions.

Participant Sample

This study involved a purposeful convenience sampling of students that attend California University of Pennsylvania. This population was chosen since the researcher attends California University of Pennsylvania, and because of their connections with various organizations at the university. However, since this study only examines students specifically at California University of Pennsylvania, the study may encounter more limitations due to the geographical location of the university, the size of the school, and COVID-19 impacting the number of students who attend in-person classes.

Summary

The purpose of this research was to examine California University of Pennsylvania students' perceptions of safety and school shootings at the university. Data was derived from an Institutional Review Board approved survey and distributed to various groups, clubs, organizations on campus. 218 responses were collected, including one outlier response. The outlier response was from a student who reported that they were not taking in-person classes at the university. The survey questions included multiple choice and Likert scale on topics such as demographics, experiences, safety, and security.

Survey Questions

See appendix I for the complete list of survey questions.

Data

The data section will present the findings of the participant responses derived from the survey. The data identified limitations and factors of students' perceptions of safety and security relating to school shooting events on campus. Additionally, the data

provided a deeper examination of students' past experiences, which can be used to identify reasons for feelings of concern or anxiety. The data will be analyzed in the following section, followed by a presentation of the significant findings.

Analysis

The online survey tool Microsoft Forms includes data analysis tools such as pie charts and graphs. Information submitted by participant responses were directly inputted into the pie charts and graphs for categorization. Pie charts and graphs derived from the Microsoft Forms survey will be used to illustrate the significant findings in the Findings section. A complete list of the results from the survey can be found in Appendix II.


Findings

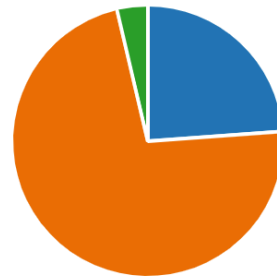
After reviewing the data collected and organized into pie charts and graphs, specific findings stand out the most. In the matter of demographics, all except one respondent was between the ages of 18 to 25. The outlier respondent was between the ages of 26 to 35. Additionally, 72% of the survey respondents were female:

3. Please select your gender: (0 point)

[More Details](#)

 Insights

	Male	52
	Female	158
	Other	8



Concerning ethnicity, 88% of the respondents were white, 7% were African American, 3% were Latino or Hispanic, and only one respondent was Asian. Lastly, with regard to






major, 19% of the respondents were Education majors, 17% were Social Science majors, and 20% were an unlisted or undecided major.

Student's responses to safety questions provided a good insight to their feelings and perceptions on the topic of shootings on campus. For instance, 29% of respondents reported that the topic of school shootings makes them very anxious, and 26% reported that the topic makes them at least a little anxious:

7. **On a scale of 1 to 5, how anxious does the topic of school mass shootings make you?** (0 point)

[More Details](#)

 Insights

	(1) No effect	32
	(2) A little anxious	57
	(3) Indifferent	44
	(4) Very anxious	64
	(5) Extremely anxious	21



When asked about feelings of safety in specific areas on campus, a majority of students disclosed that they either feel safe or extremely safe in classrooms, the student union, residence halls, and generally walking around campus. For example, 48.6% of students stated they feel somewhat safe in classrooms whereas 7.8% of students said that they feel unsafe. Additionally, 53.7% of students reported that they feel somewhat safe walking around campus, and 9.6% reported that they feel unsafe. In all four instances when students were asked about their feelings of safety in classrooms, the student union, residence halls, and walking around campus, less than 1% of the respondents stated that they felt extremely unsafe.

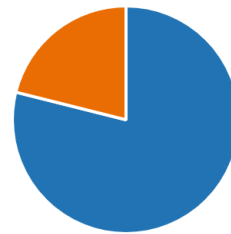
In addition to safety and demographics, survey questions also asked students about their prior experiences with potential threats of a school shooting. When asked about experiencing a school shooting in either high school or college, 98% of the respondents reported no. However, when asked about experiencing a threat of a school shooting in either high school or college, 79% of the respondents reported yes:

10. **Have you ever experienced a threat of a school shooting in high school or college?** (0 point)

[More Details](#)

 Insights

● Yes	172
● No	46



Survey questions then asked students about their experiences of reading or hearing about school shootings on social media. 44.5% of students stated that they read about school shootings somewhat often on social media, and 48.2% stated that they hear about school shootings on news media somewhat often. When asked how they primarily obtain information about current events, 76% of students reported social media, while only 13% reported watching the news on TV:

13. **Where do you primarily obtain information about current events?** (0 point)

[More Details](#)

 Insights

● Watching the news on TV	28
● Social Media	166
● Newspapers	2
● From someone you know	14
● Another source	8

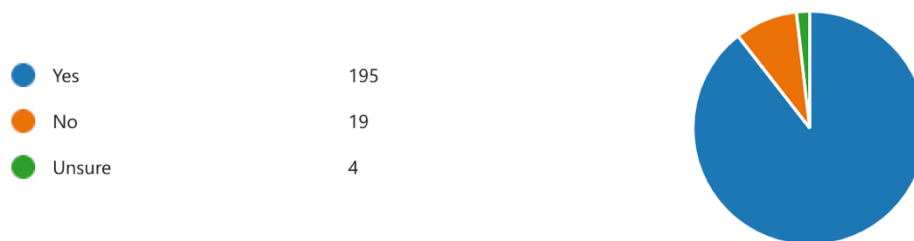


Additionally, 31% of students stated that they view the most content on school shootings on Facebook, while Instagram and Twitter tied for second.

Students were then asked questions about their experiences with mass shooting drills. Notably, 89% of students reported that they have participated in a mass shooting drill, and 50% of students stated that they have participated in mass shooting drills four or more times:

17. **Have you ever participated in a mass shooting drill?** (0 point)

[More Details](#)

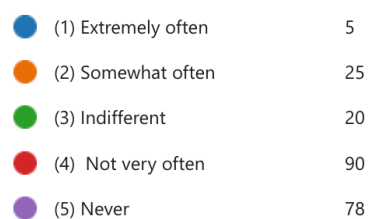


When asked how the topic of mass shooting drills makes them feel, 39% answered a little anxious, while 24% stated that there was no effect. Finally, students were asked how often they discuss school shootings during class time. Remarkably, 41% of students responded not very often and 36% reported never. Only 2% of students stated that they discuss school shootings extremely often during class time:

20. **On a scale of 1 to 5, how often do you discuss school shootings during class times?** (0 point)

[More Details](#)

[Insights](#)



The last category of questions students were asked, were based on the physical security of the campus. Students were asked how familiar they were with what to do in case an active shooter situation would arise on campus. 26.6% of students responded that were not familiar at all what to do, while only 7.3% stated that they were extremely familiar with what to do. Additionally, students were asked how familiar they were with emergency evacuation plans on campus. 39.9% of students responded that they were not familiar at all with the plans, and only one student responded that they were extremely familiar with emergency evacuation plans.

Finally, students were questioned on their satisfaction with the physical campus security. When asked about the overall campus security, 42% of students stated that they were somewhat satisfied. In addition, a majority of students responded that they felt indifferent about the location and amount of security cameras on campus. The responses to the satisfaction questions regarding the location and amount of blue-light emergency phones on campus were very similar. For example, 23.9% of students stated that they were unsatisfied with the location of the phones and 23.4% stated that they were unsatisfied with the number of phones.

Discussion

The survey distributed to California University of Pennsylvania students provided many helpful insights on generally how they perceive safety and mass shootings on campus. Specifically, the responses provided important information that can begin to answer the two research questions: how does the media and active shooter drills influence student's perceptions on the topic and does the threat of an active shooter impact students' perceptions of safety on campus?

After examining the demographics section, it is no surprise that all but one student fell into the age range of 18 to 25, since this is the typical age range for undergraduate students taking on-campus classes. It is important to note that 194 students out of the 218 who took the survey were white students. Therefore, the minority populations were highly unrepresented within this survey. Additionally, as per instructions of the survey, students were only supposed to take the survey if they were taking on-campus classes. However, one outlier respondent answered that they were not taking on-campus classes. Although miniscule, this outlier response could have skewed the responses slightly.

Within the demographics section, a majority of students were either education, social science, or another or undecided major. Specifically, 20% of students were another or undecided major, 19% were education majors, and 17% were social science majors. Since there was such a high number of students that responded they were another or undecided major, it is questionable as to if the categories of majors were confusing to most students. Further, although the results could not have been broken down specifically between all 11 majors, it is important to note that the major of a student would likely have altered the way they responded to the safety, experience, and physical security questions. For example, it could be suggested that the five students who responded they discuss school shootings extremely often during class were a social science major, such as Criminal Justice. The 78 students who stated that they never discuss school shootings during class were most likely a business or biological science major. However, it is interesting to point out that although Education majors were highly represented throughout this survey, 36% of students responded that they never discuss school shootings during class. The reason this is striking is due to the fact that school shootings

would seem to be a prevalent topic discussed within the Education major. Lastly, to further expand upon this concept, the survey results would more than likely have been different if there was a higher representation of the Communications, Engineering, and Health Professions majors, since the course material in these majors do not relate to the topic of school shootings at all.

Due to the inability to break down survey answers by major, a discussion on the findings will be based off of the comparison of the dominant answers. First, it is important to note that although only 2% of students reported that they experienced a school shooting in either high school or college, 79% stated they at least experienced a threat of a school shooting in high school or college. Additionally, 27% of students responded that they experienced another student bringing a firearm into high school or college. Therefore, it is irrefutable that a majority of the respondents in some way have had an experience relating to a school shooting, or potential for one to have occurred. Since it is evident that a majority of students have had these experiences, it parallels with the responses regarding mass shooting drills. In response to the experiences the students reported of either enduring a school shooting, a student bringing a firearm onto school grounds, or a threat of a shooting, it would begin to explain why 89% of students stated that they have participated in an active shooter drill, and why 50% of the students stated they have participated in four or more drills. However, overall, 39% of students stated that the topic of mass shooting drills only makes them a little anxious, and 24% stated that the topic has no effect on them whatsoever. Since the students reported participating in four or more mass shooting drills, the repeated drills could have either desensitized the students, or made them confident in what to do if a school shooting situation would arise.

However, the latter could be contradicted, since 29% of students stated that the topic of school shootings makes them feel very anxious, and 26% reported that it at least makes them feel a little anxious.

When students were asked how often they heard about school shootings on social or news media, 46.3%-48.2% of students reported “somewhat often.” Additionally, 76% reported that they primarily obtain information about current events on social media, and Instagram and Snapchat tied for being the most used social media network. However, even more interesting, students expressed that they saw or heard about school shootings most on Facebook. Therefore, if Instagram and Snapchat are the most used networks, it is puzzling as to why Facebook would be the network where most students gathered information about school shootings. Nevertheless, it is important to mention that 76% of students stated that they obtain information about current events on social media. As it was presented in the literature review, social media typically contains misinformation and sensitive details on school shootings, which could correlate to the students reporting that the subject makes them very or a little anxious. Lastly, it is important to note that these numbers could have been much higher if a school shooting occurred during the time period the survey was being distributed.

The last and arguably most important section to discuss is the students’ satisfaction and familiarity with California University of Pennsylvania’s specific security measures and plans put into place. When students were asked how familiar they were with knowing what to do if an active shooter situation were to arise on campus, 29.8% of students stated that they were not very familiar and 26.6% reported that they were not familiar at all. Similarly, when asked about evacuation plans on campus, 32.1% of

students stated that they were not very familiar, and 39.9% reported that they were not familiar at all. Therefore, these responses undoubtedly explain the need for more communication and training in these areas. However, one reason for the lack of training and education in these areas could be contributed to the COVID-19 pandemic. Students were also asked questions on their satisfaction with the overall security on campus, as well as their opinions on the location and quantity of security cameras and blue-light emergency phones on campus. In response to the satisfaction of overall campus security, 17.9% of students reported they were extremely satisfied, and 42.7% of students reported that they were somewhat satisfied. Only 2.8% of students stated that they were extremely unsatisfied. Questions concerning the amount and location of security cameras were mainly felt indifferently by students. Reasons for this could be because students normally do not take notice to security cameras, or they do not recognize the importance security cameras have in a school shooting event. However, 22-27.1% of students relayed that they were at least somewhat satisfied with the amount and location of security cameras. Lastly, responses were varied on the questions regarding the amount and location of blue-light emergency phones on campus. For example, regarding location, 32% of students stated that they were somewhat satisfied, 19.7% of students stated they felt indifferent, and 23.9% said they felt generally unsatisfied. An explanation for these insignificant findings could be due to students' unfamiliarity with blue-light emergency phones and what their purpose is.

Limitations

There were two notable limitations with this research study. The first limitation was due to the limited time in distributing the survey. After applying for Institutional

Review Board approval, completing the literature review, and creating survey questions that align with the research questions, it provided a limited amount of time to distribute the survey and collect data. The survey link was active for two weeks which resulted in 218 participants completing the survey. Additionally, the researcher was limited on time due to preparing for the Academy of Criminal Justice Sciences conference and the Pennsylvania Association of Criminal Justice Educators conference. In order to have an adequate amount of research to present at these conferences, the researcher had to limit the time frame for distributing the survey.

The second limitation was the limited availability of respondents for the survey. This is greatly due to being restricted in only surveying California University of Pennsylvania students. In order to have surveyed other southwestern Pennsylvania college students, or other college students in general, the researcher would have had to apply for Institutional Review Board approval at those other colleges or universities. Due to the time constraints, the researcher would not have been able to apply to other Institutional Review Boards in order to obtain data from other college students. However, it would have been beneficial to obtain additional perspectives from college students that attended other institutions.

Recommendations

Based upon the significant findings of this research, recommendations can be made to California University of Pennsylvania. This first recommendation is to provide more opportunities for basic education and training on active shooters incidents. The basis of this training would include information on what to do if there is an active shooter on campus and evacuation plans for all areas on campus. This training is crucial,

especially since the COVID-19 pandemic has put a halt to any previous education and training that was in place. Although there have been no recent school shootings due to students learning at home, it is important that schools do not become sedentary and remain proactive. Similarly, the second recommendation is to provide more education and training on the current campus security measures in place. This would include educating students on the blue-light emergency phones placed around campus, such as how to use them and the purpose of them. Additionally, students should be made aware of the CalU Emergency Alert System and how to sign-up for it. The last education-related recommendation would be to provide students with information on the harms of obtaining current event details strictly from social media. Students must understand the harms and risks of utilizing social media to search for facts, especially relating to school shooting events.

In addition to education and training, recommendations can be made to improve upon the physical security of the campus. One of the ways this can be accomplished is to encourage professors to create and discuss a plan in the event an active shooter would enter the lecture halls. This plan would include who to alert, how to evacuate, where to hide, and how to counter the intruder as a last resort option. It is important to note that professors in all majors must adopt this recommendation, since the findings from the survey distributed found that a majority of majors do not discuss the topic of armed intruders. A second recommendation would be to create an anonymous tip database in order to encourage students to say something if they see or hear something. This database could be monitored by the campus police and other appropriate campus groups in order to determine the credibility of the threats. Additionally, although students could submit tips

about an active shooter threat, students may also use it for reporting other underreported crimes such as vandalism, theft, assault, etc. The rules and use of the database would be covered during the education and training sessions. The last recommendation would be to have more visible campus police presence throughout the day in the lecture halls, the Natali Student Union, and residence halls. Not only will this presence serve as a deterrent for crimes to occur, such as an active shooter, but it will also provide students with the opportunity to interact with the campus police in a more positive way. The increase of police presence may cause students to feel even more uneasy or believe that something is wrong, but this can be eliminated as long as they are intentionally interacting with the students and communicating the new initiatives they are implementing.

Conclusion

The goal of this research study was to answer the two research questions: How does the media and active shooter drills influence student's perceptions on the topic and does the threat of an active shooter impact students' perceptions of safety on campus? The results of the survey concluded that a majority of students in sample population taken from California University of Pennsylvania obtain current event information primarily from social media, and that a majority of them have participated in a mass shooting drill. Additionally, these same students reported that 79% have experienced a threat of a school shooting, and 27% have experienced a student bringing a firearm onto a school campus. Therefore, it can be concluded that factors such as the media and active shooter drills have played a role in a majority of the students' lives, as well as experiencing some sort of active shooter threat at a point of time in their lives.

In order to fully answer the research questions, the degree to which those factors and experiences play a role in student perceptions must be determined. Specifically looking at the media, 76% of the students reported that they primarily obtain information about current events from social media, with the most reported network being Facebook. Therefore, it can be supported that students at California University of Pennsylvania most likely obtain a majority of their information about school shootings from social media, and because of that, a majority of the information they are consuming is likely to be inaccurate. This greatly impacts students' perceptions because misinformation can cause fear and panic within students if they do not have verified information.

Additionally, although the vast majority of students reported that they have participated in a mass shooting drill, 50% of them stated that they have participated in four or more drills. Essentially, this could average out to being one drill per academic year in high school or college. Although half of the students reported participating in four or more drills, almost 40% of the students stated that the topic of mass shooting drills alone makes them still a little anxious. Therefore, the number of drills students participate in clearly impact their perceptions. This could signify that having too many drills can make students worry more about an active shooter incident actually occurring on campus, or relay to school administrators that there must be modifications made to improve the drills in order to make students more confident in their safety.

Lastly, almost 30% of the students who took the survey at California University of Pennsylvania reported that the topic of school shootings makes them very anxious. Additionally, 26% reported that the topic of school shootings make them at least a little anxious. This anxiety and concern can come from previous experiences such as the threat

of a school shooter, or a student bringing a gun onto a school campus. Additionally, the fear and worry can be derived from not discussing the topics regularly or being unfamiliar with the current safety measures and procedures put in the place. The point is that students concerns and anxiety surrounding the topic of school shootings can be derived from a vast number of reasons. Therefore, there is not one specific reason as to how outside factors and experiences can impact student perceptions. It can be affirmed that the media, school shooting drills, and other experiences without a doubt impact student perceptions, but the way these factors influence perceptions is different for every student. In conclusion, the primary finding from this research is that students need to be continuously assessed and evaluated in order to determine how to properly address their concerns about safety and mass shootings at the university. By developing an open line of communication, promoting education and training, and regularly reassessing security measures put in place, students' perceptions of fear and anxiety can be mitigated regardless of external factors and prior experiences.

References

- Auxier, B. (2020, October 15). *64% of Americans say social media have a mostly negative effect on the way things are going in the U.S. today*. Pew Research Center. Retrieved January 19, 2022, from <https://www.pewresearch.org/fact-tank/2020/10/15/64-of-americans-say-social-media-have-a-mostly-negative-effect-on-the-way-things-are-going-in-the-u-s-today/>
- Chekwa, C., Thomas, Jr, E., & Jones, V. J. (2013). What Are College Students' Perceptions About Campus Safety? *Contemporary Issues in Education Research (CIER)*, 6(3), 325–332. <https://doi.org/10.19030/cier.v6i3.7903>
- College Pulse. (2019, August 22). *College Students Rank The New York Times and NPR as Favorite News Sources*. College Pulse. Retrieved January 19, 2022, from <https://collegepulse.com/blog/college-students-rank-the-new-york-times-and-npr-as-favorite-news-sources>
- Elsass, H. J., Jaclyn Schildkraut, & Stafford, M. C. (2014). Breaking News of Social Problems: Examining Media Consumption and Student Beliefs about School Shootings. *Criminology, Criminal Justice Law & Society*, 15(2).
- Frishberg, H. (2021, December 17). *Tiktok 'Challenge' warns of alleged school shooting threats across US*. New York Post. Retrieved January 16, 2022, from

<https://nypost.com/2021/12/16/tiktok-challenge-warns-of-alleged-school-shooting-threats/>

Jonson, C. L. (2017). Preventing School Shootings: The Effectiveness of Safety Measures.

Victims & Offenders, 12(6), 956–973.

<https://doi.org/10.1080/15564886.2017.1307293>

Kaminski, R. J., Koons-Witt, B. A., Thompson, N. S., & Weiss, D. (2010). The impacts of the Virginia Tech and Northern Illinois University shootings on fear of crime on campus. *Journal of Criminal Justice*, 38(1), 88–98.

<https://doi.org/10.1016/j.jcrimjus.2009.11.011>

McCarthy, J. (2021, May 7). *Fear for Child's Safety Nearly Back to Pre-Sandy Hook Levels*.

Gallup.com. Retrieved January 15, 2022, from

<https://news.gallup.com/poll/174827/fear-child-safety-nearly-back-pre-sandy-hook-levels.aspx>

National School Safety and Security Services. (n.d.). *ALICE & Run-Hide-Fight Training: Teaching Students to Attack Gunmen*. Retrieved January 21, 2022, from

<https://www.schoolsecurity.org/trends/alice-training/>

Perrin, A. (2020, May 30). *Social Media Usage: 2005-2015*. Pew Research Center: Internet,

Science & Tech. Retrieved January 19, 2022, from

<https://www.pewresearch.org/internet/2015/10/08/social-networking-usage-2005-2015/>

Rygg, L. (2015). School Shooting Simulations: At What Point Does Preparation Become More Harmful than Helpful? *Children's Legal Rights Journal*, 35(3).

Stein, E. (2021, December 24). *Oxford school shooting lasted 5 minutes. on social media, it never ended*. Detroit Free Press. Retrieved January 18, 2022, from <https://www.freep.com/story/news/local/michigan/oakland/2021/12/23/oxford-school-shooting-social-media/6436394001/>

Twemlow, S. W., Fonagy, P., Sacco, F. C., O'toole, M. E., & Vernberg, E. (2002). Premeditated mass shootings in schools: Threat assessment. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41(4). <https://doi.org/10.1097/00004583-200204000-00021>

Vieweg, S., Palen, L., Liu, S. B., Hughes, A. L., & Sutton, J. (2008). Collective Intelligence in Disaster: Examination of the Phenomenon in the Aftermath of the 2007 Virginia Tech Shooting. *Proceedings of the 5th International ISCRAM Conference*.

Walker, T. (2020, February 25). *Unannounced Active Shooter Drills Scaring Students Without Making Them Safer*. NEA. Retrieved January 20, 2022, from <https://www.nea.org/advocating-for-change/new-from-nea/unannounced-active-shooter-drills-scaring-students-without>

Appendix I: Survey Questions

- I. Please select the age range you fall into:
 - a. 18-25
 - b. 26-35
 - c. 36-49
 - d. 50 and older

- II. Please select your gender:
 - a. Male
 - b. Female
 - c. Other

- III. Please select your ethnicity:
 - a. White
 - b. African American
 - c. Latino or Hispanic
 - d. Asian
 - e. Native American
 - f. Native Hawaiian or Pacific Islander

- IV. Are you currently an adult student (18 or older) taking on-campus classes at California University of Pennsylvania?
 - a. Yes
 - b. No

- V. Please select the category that best fits the major you are pursuing:
 - a. Arts and Humanities

- b. Biological Sciences
- c. Physical Sciences
- d. Social Sciences
- e. Business
- f. Communications
- g. Education
- h. Engineering
- i. Health Professions
- j. Social Service Professions
- k. Other major or undecided

VI. On a scale of 1 to 5, how anxious does the topic of school mass shootings make you?

- 1. No effect
- 2. A little anxious
- 3. Indifferent
- 4. Very anxious
- 5. Extremely anxious

VII. On a scale of 1 to 5, regarding mass shootings,

- a. How safe do you feel in your classrooms at the college/ university?
- b. How safe do you feel walking around campus?
- c. How safe do you feel in the student union?
- d. How safe do you feel in the residence halls?

VIII. Have you ever experienced a school shooting in high school or college?

- a. Yes
- b. No

IX. Have you ever experienced a threat of a school shooting in high school or college?

- a. Yes
- b. No

X. Have you ever experienced a student bringing a firearm into school in high school or college?

- a. Yes
- b. No

XI. On a scale of 1 to 5, how often do you

- a. Read about school mass shootings
- b. Hear about school mass shootings on social media
- c. Hear about school shootings on news media

- 1. Extremely often
- 2. Somewhat often
- 3. Indifferent
- 4. Not very often
- 5. Never

XII. Where do you primarily obtain information about current events?

- a. Watching the news on TV
- b. Social Media
- c. Newspapers

- d. From someone you know
- e. Another source

XIII. Which social media network do you use the most?

- a. Instagram
- b. Twitter
- c. Snapchat
- d. Facebook
- e. TikTok
- f. Other

XIV. Which social media network do you hear/ see the most about school mass shootings?

- a. Instagram
- b. Twitter
- c. Snapchat
- d. Facebook
- e. TikTok
- f. Other

XV. On a scale of 1 to 5, how anxious does shootings on TV, movies, or other videos make you?

- 1. No effect
- 2. A little anxious
- 3. Indifferent
- 4. Very anxious

5. Extremely anxious

XVI. Have you ever participated in a mass shooting drill?

- a. Yes
- b. No
- c. Unsure

XVII. How many times have you participated in a mass shooting drill?

- a. None
- b. Once
- c. 2-3 times
- d. 4+ times

XVIII. On a scale of 1 to 5, how anxious does the topic of mass shooting drills make you?

- 1. No effect
- 2. A little anxious
- 3. Indifferent
- 4. Very anxious
- 5. Extremely anxious

XIX. On a scale of 1 to 5, how often do you discuss school shootings during class times?

- 1. Extremely often
- 2. Somewhat often
- 3. Indifferent
- 4. Not very often

5. Never

XX. On a scale of 1 to 5, how familiar are you with

a. What to do in the case of an active shooter on campus?

b. Emergency evacuation plans on campus?

1. Extremely familiar

2. Somewhat familiar

3. Indifferent

4. Not very familiar

5. Not familiar at all

XXI. On a scale of 1 to 5, how satisfied are you with

a. The campus security?

b. The location of security cameras on campus?

c. The amount of security cameras on campus?

d. The location of the blue-light emergency phones on campus?

e. The amount of the blue-light emergency phones on campus?

1. Extremely satisfied

2. Somewhat satisfied

3. Indifferent

4. Unsatisfied

5. Extremely unsatisfied

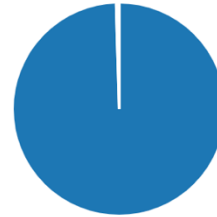
Appendix II: Survey Results

2. Please select the age range you fall into: (0 point)

[More Details](#)

[Insights](#)

● 18-25	217
● 26-35	1
● 36-49	0
● 50 and older	0



3. Please select your gender: (0 point)

[More Details](#)

[Insights](#)

● Male	52
● Female	158
● Other	8

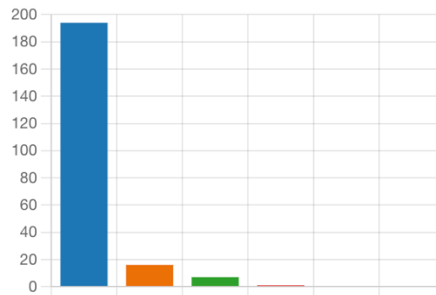


4. Please select your ethnicity: (0 point)

[More Details](#)

[Insights](#)

● White	194
● African American	16
● Latino or Hispanic	7
● Asian	1
● Native American	0
● Native Hawaiian or Pacific Island...	0



5. Are you currently an adult student (18 or older) taking on-campus classes at California University of Pennsylvania?

(0 point)

[More Details](#)

[Insights](#)

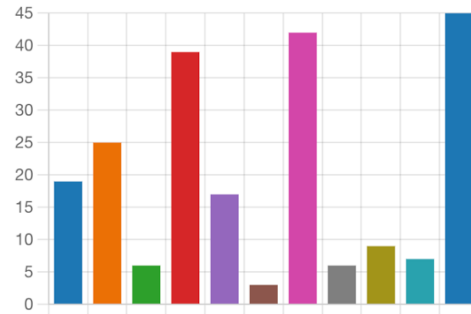
● Yes	217
● No	1



6. Please select the category that best fits the major you are pursuing: (0 point)

[More Details](#)

● Arts and Humanities	19
● Biological Sciences	25
● Physical Sciences	6
● Social Sciences	39
● Business	17
● Communications	3
● Education	42
● Engineering	6
● Health Professions	9
● Social Service Professions	7
● Other major or undecided	45



7. On a scale of 1 to 5, how anxious does the topic of school mass shootings make you? (0 point)

[More Details](#)

Insights

● (1) No effect	32
● (2) A little anxious	57
● (3) Indifferent	44
● (4) Very anxious	64
● (5) Extremely anxious	21

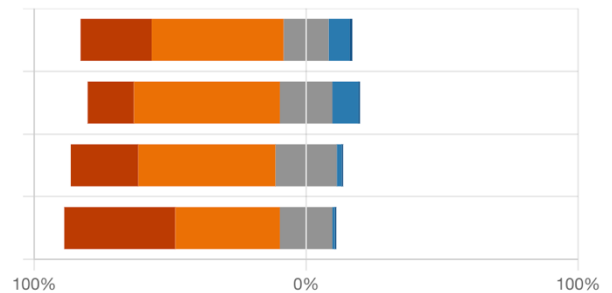


8. On a scale of 1 to 5, regarding mass shootings, (0 point)

[More Details](#)

■ (1) Extremely Safe ■ (2) Somewhat safe ■ (3) Indifferent ■ (4) Unsafe ■ (5) Extremely unsafe

How safe do you feel in your classrooms at the college/university?
 How safe do you feel walking around campus?
 How safe do you feel in the student union?
 How safe do you feel in the residence halls?



9. **Have you ever experienced a school shooting in high school or college?** (0 point)

[More Details](#)

[Insights](#)

- Yes 5
- No 213

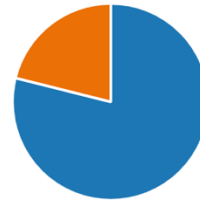


10. **Have you ever experienced a threat of a school shooting in high school or college?** (0 point)

[More Details](#)

[Insights](#)

- Yes 172
- No 46



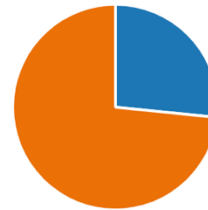
11. **Have you ever experienced a student bringing a firearm into school in high school or college?**

(0 point)

[More Details](#)

[Insights](#)

- Yes 58
- No 160

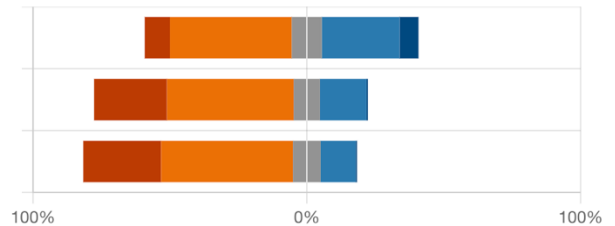


12. **On a scale of 1 to 5, how often do you** (0 point)

[More Details](#)

- (1) Extremely often
- (2) Somewhat often
- (3) Indifferent
- (4) Not very often
- (5) Never

- Read about school mass shootings?
- Hear about school mass shootings on social media?
- Hear about school shootings on news media?



13. Where do you primarily obtain information about current events? (0 point)

[More Details](#) [Insights](#)

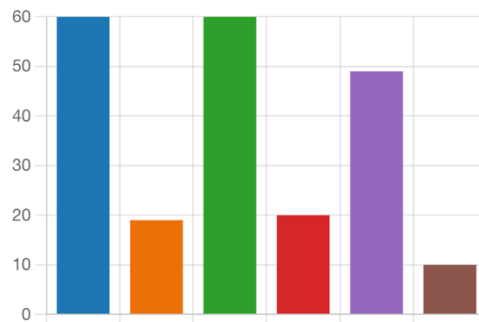
● Watching the news on TV	28
● Social Media	166
● Newspapers	2
● From someone you know	14
● Another source	8



14. Which social media network do you use the most? (0 point)

[More Details](#)

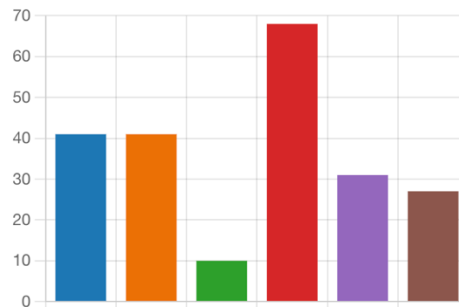
● Instagram	60
● Twitter	19
● Snapchat	60
● Facebook	20
● Tik Tok	49
● Other	10



15. Which social media network do you hear/ see the most about school mass shootings? (0 point)

[More Details](#) [Insights](#)

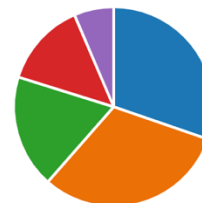
● Instagram	41
● Twitter	41
● Snapchat	10
● Facebook	68
● Tik Tok	31
● Other	27



16. On a scale of 1 to 5, how anxious does shootings on TV, movies, or other videos make you? (0 point)

[More Details](#) [Insights](#)

● (1) No effect	66
● (2) A little anxious	68
● (3) Indifferent	40
● (4) Very anxious	30
● (5) Extremely anxious	14



17. **Have you ever participated in a mass shooting drill?** (0 point)

[More Details](#)

● Yes	195
● No	19
● Unsure	4

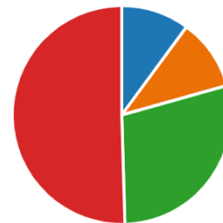


18. **How many times have you participated in a mass shooting drill?** (0 point)

[More Details](#)

[Insights](#)

● None	22
● Once	23
● 2-3 times	63
● 4+ times	110

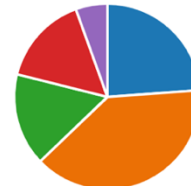


19. **On a scale of 1 to 5, how anxious does the topic of mass shooting drills make you?** (0 point)

[More Details](#)

[Insights](#)

● (1) No effect	52
● (2) A little anxious	85
● (3) Indifferent	35
● (4) Very anxious	34
● (5) Extremely anxious	12

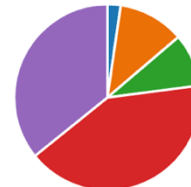


20. **On a scale of 1 to 5, how often do you discuss school shootings during class times?** (0 point)

[More Details](#)

[Insights](#)

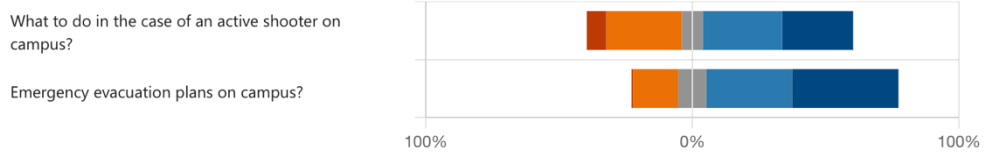
● (1) Extremely often	5
● (2) Somewhat often	25
● (3) Indifferent	20
● (4) Not very often	90
● (5) Never	78



21. On a scale of 1 to 5, how familiar are you with (0 point)

[More Details](#)

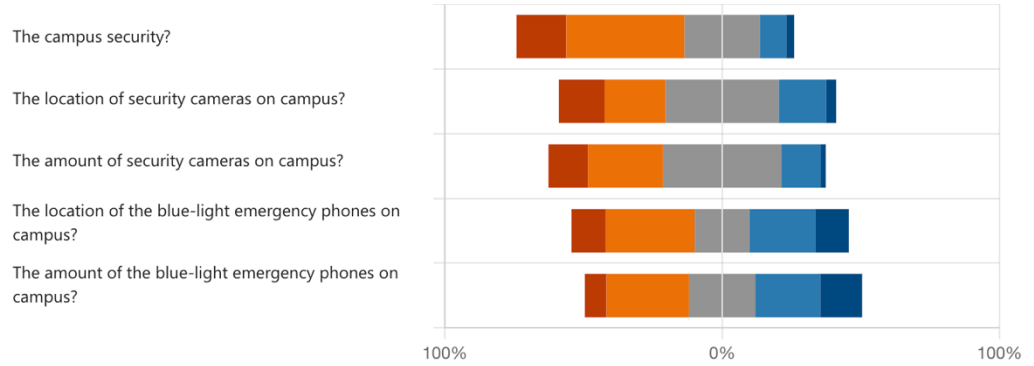
■ (1) Extremely familiar ■ (2) Somewhat familiar ■ (3) Indifferent ■ (4) Not very familiar ■ (5) Not familiar at all



22. On a scale of 1 to 5, how satisfied are you with (0 point)

[More Details](#)

■ (1) Extremely satisfied ■ (2) Somewhat satisfied ■ (3) Indifferent ■ (4) Unsatisfied ■ (5) Extremely unsatisfied



Appendix III: Institutional Review Board Approval

**Institutional Review Board
California University of Pennsylvania
Morgan Hall, 310
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.**

Dear Brittany,

Please consider this email as official notification that your proposal titled "On Campus College Student's Perceptions of School Mass Shootings" (Proposal #21-012) has been approved by the California University of Pennsylvania Institutional Review Board as submitted.

The effective date of approval is 12/29/2021 and the expiration date is 12/28/2022. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

- (1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)
- (2) Any events that affect the safety or well-being of subjects
- (3) Any modifications of your study or other responses that are necessitated by any events reported in (2).
- (4) To continue your research beyond the approval expiration date of 12/28/2022 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.
Chair, Institutional Review Board